

REMARKS/ARGUMENTS

STATUS OF THE APPLICATION

Claims 1-5, 7, 8, 10-15, 17, 18, 20-25, 27, 28, and 30-36 were pending in this application and examined. Claims 1-5, 7-8, 11-15, 17-18, 21-25, 27-28, 31, and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ball et al. "Software Visualization in the Large", IEEE Computer, vol. 29, No. 4, pp. 33-43 (hereinafter "Ball") in view of Wroblewski et al. (U.S. Patent 5,479,600; hereinafter "Wroblewski"). Claims 10, 20, 30, 32, 34, and 36 are rejected under 35 U.S.C. §103(a) as being unpatentable over Aalbersberg (U.S. Patent 5,946,678) in view of Wroblewski.

Applicant has amended claims 1, 8, 10, 11, 18, 20, 21, 28, 30, 32, 34, and 36, and added new claim 37. Applicant submits that no new subject matter has been introduced by the amendments. Claims 1-5, 7, 8, 10-15, 17, 18, 20-25, 27, 28, and 30-37 remain pending in this application after filing of this amendment.

THE DRAWINGS

Applicant respectfully requests that the submission of a petition under 37 CFR 1.84(a)(2) for color photographs be deferred until allowable subject matter has been indicated.

THE CLAIMS

Rejections under 35 U.S.C. § 103(a)

Claim 1

Applicant submits that the features of the present invention recited in independent claim 1, are not taught or made obvious by the cited references, and have further amended claim 1 to more clearly distinguish the recited present invention from the prior art references. For example, claim 1 as amended recites:

displaying, based upon the identified occurrences of discussion, a visual indicator showing relative strength of the user-specified concept of interest at locations within the electronically stored document such that, for a location within the electronically stored document, the visual indicator displays the strength of the user-specified concept of interest at that location relative to other locations in the electronically stored document, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing relative strength of a user-specified concept of interest. (Applicant's claim 1, emphasis added)

As recited above, the "visual indicator" recited in claim 1 shows the relative strength of a user-specified concept at various locations within the document. Accordingly, for any given location within the document, the visual indicator displays the strength of the concept at that location relative to other locations within the document. Examples of the visual indicator are depicted in Figs. 1A, 1B, 4, 5, 7A, 7B, 7C, and 7D of the application. Applicant would like to emphasize that this is substantially different from just displaying the locations of the concept within the document. In fact, the document itself need not even be displayed.

Claim 1 also recites that the visual indicator comprises "a first axis" representing locations within the electronically stored document and "a second axis" representing relative strength of a user-specified concept of interest.

Applicant submits that the above described features recited in claim 1 are not taught or suggested by Ball or Wroblewski, considered individually or in combination. The section of Ball (page 4, 2.1, and Fig. 1) identified in the Office Action describes a "line representation" using different colors. In the "right pane" in Fig. 1 of Ball, each line of text is shrunk to a single row of pixels, preserving the indentation, length and coloring. The color of the line may code a statistic. Accordingly, each colored line conveys information about the location of a particular statistic in the code document or file. For example, in Fig. 1, the color green is used to represent old code and the color red is used to represent new code.

Applicant submits that the colored lines in Ball merely show the locations of a particular statistic (e.g., old code) within a document. However, as previously indicated, showing locations within a document is substantially different from showing the relative strength

of a concept at various locations in the document. Fig. 1 is Ball enables a user to see where a particular statistic is located in a document but does not show the relative strength of the statistic at various locations in the document relative to other locations in the document.. Given Fig. 1 in Ball, a user would still have to manually scan the entire document to see the distribution of the colored lines and then use his or her judgment to determine/guess the relative strength of the concept at various locations within the document. This is not the case in the present invention as recited in claim 1. The “visual indicator” recited in claim 1 automatically provides an indication of the relative strength of the concept at various locations within the document—unlike Ball, the user does not have to manually guess or rely on his or her judgment to determine the relative strength of a concept at various locations within the document. For example, the visual indicator recited in claim 1 automatically indicates to the user which locations within the document have the highest strength of a concept--this is not automatically shown in Ball.

In light of the above, Applicant submits that a “visual indicator showing relative strength of the user-specified concept of interest at various locations within the electronically stored document” as recited in claim 1 is not taught or suggested by Ball.

Further, as already acknowledged by the Office Action, Ball also fails to teach or suggest a visual indicator comprising a “first axis” and a “second axis” as recited in claim 1.

Applicant submits that the above deficiencies of Ball are not cured by Wroblewski. Wroblewski teaches scroll bars that display locations of significant data attributes within a stored data file. In Wroblewski, a map of the positions of significant attributes within a stored data file is superimposed on the scroll bar (Wroblewski: col. 1 lines 44-49). The data attributes may include words, phrases, etc. As depicted in Figs 2 and 3 in Wroblewski and described in col. 3, a vertical scrollbar and a horizontal scrollbar are displayed. The vertical scrollbar depicts the vertical positions of relevant attributes within the displayed file. The horizontal scrollbar depicts the horizontal positions of relevant attributes within the displayed file. (Wroblewski: Figs. 2 and 3, col. 3 27-67).

Accordingly, Applicant submits that both the scrollbars in Wroblewski depict positions or locations of relevant attributes in the displayed document. Unlike the present

invention as recited in claim 1, Wroblewski fails to teach or suggest displaying a visual indicator that shows the relative strength of a user-specified concept at various locations within the document. For any given location within the document, the scrollbars in Wroblewski do not display the strength of the relevant attribute at that location relative to other locations within the document. In fact, Applicant submits that Wroblewski and Ball are similar in that they both display the locations of relevant attributes or statistics--not the relative strength of a user-specified concept at various locations within the document.

Further, Applicant submits that Wroblewski also fails to teach or suggest the “first axis” and the “second axis” recited in claim 1. The Office Action contends that the “vertical scrollbar” of Wroblewski is analogous to the “first axis” and the “horizontal scrollbar” of Wroblewski is analogous to the “second axis”. Applicant submits that at least the “second axis” recited in claim 1 is not taught or suggested by Wroblewski. As recited in claim 1, the “visual indicator comprises . . . a second axis representing relative strength of a user-specified concept of interest.” Applicant submits that neither the vertical scrollbar nor the horizontal scrollbar represents relative strength of a user-specified concept of interest. Both the vertical scrollbar and the horizontal scrollbar in Wroblewski display the vertical and horizontal locations within the displayed file--not the relative strength of a concept at various locations within the document.

Applicant thus submits that Wroblewski fails to cure the deficiencies of Ball. Accordingly, even if Ball and Wroblewski were combined as suggested by the Office Action (even though there appears to be no motivation to do so), the resultant combination would still not teach or suggest a visual indicator, as recited in claim 1, that shows relative strength of a concept of interest at various locations within a document such that for a particular location the visual indicator displays the strength of the user-specified concept of interest at that location relative to other locations in the document, and which comprises a first axis representing locations within the electronically stored document and a second axis representing relative strength of a user-specified concept of interest.

Applicant thus submits that claim 1 is patentable over Ball in view of Wroblewski.

Applicant further submits that the deficiencies of Ball and Wroblewski are not cured by Aalbersberg. Applicant thus submits that claim 1 is in a condition for allowance.

Claims 2-5, 7, 8, 10-15, 17, 18, 20-25, 27, 28, and 30-36

Applicant submits that independent claims 10, 11, 20, 21, and 30 are allowable for at least a similar rationale as discussed for allowing claim 1, and others.

Applicant submits that claims 2-5, 7, 8, and 31 that depend from claim 1, should also be allowed for at least a similar rationale as discussed for allowing claim 1, and others. Claims 32, 34, and 36 that depend from claims 10, 20, and 30 respectively, should also be allowed for at least a similar rationale as discussed for allowing claims 10, 20, and 30. Claims 12-15, 17, 18, and 33 that depend from claim 11, should also be allowed for at least a similar rationale as discussed for allowing claim 11. Claims 22-25, 27, 28, and 35 that depend from claim 21, should also be allowed for at least a similar rationale as discussed for allowing claim 21.

Applicant further submits that the dependent claims recite additional features that are not taught or suggested by the cited references considered individually or in combination. For example, the features of a contour graph image (recited by claims 2, 12, and 22), line graph (recited by claims 3, 13, and 23), bar graph (recited by claims 4, 14, and 24), and scatter diagram (recited by claims 5, 15, and 25) are not taught or suggested by the cited references. The Office Action contends that Ball shows these features. However, as previously stated, Ball merely shows locations of a particular statistic within a document. Each of the terms recited in the claims however has a specific form and structure that is well understood by those skilled in the art and is substantially different from merely showing locations within a document as in Ball. Applicant submits that the claims are also allowable for these additional reasons.

Appl. No. 09/348,652
Amdt. dated June 24, 2004
Reply to Office Action of February 24, 2004

PATENT

New Claim

Applicant has added new claim 37 to claim further features of the invention.
Claim 37 is believed to be in a condition for allowance.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

S. B. Kotwal

Sujit B. Kotwal
Reg. No. 43,336

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 650-326-2422
SBK:km
60191960 v1